



National Kitchen & Bath Association
The Finest Professionals in the Kitchen & Bath Industry

KITCHEN PLANNING GUIDELINES

Excerpt from the NKBA Professional Resource Library Kitchen Planning and Bath Planning Volumes

Kitchen Planning Guideline 1—Door Entry

Recommended: The clear opening of a doorway should be at least 34 inches wide. This would require a minimum 2-foot 10-inch door.

Kitchen Planning Guideline 2—Door Interference

Recommended: No entry door should interfere with the safe operation of appliances, nor should appliance doors interfere with one another.

In addition, the door area should include clear floor space for maneuvering which varies according to the type of door and direction of approach.

Kitchen Planning Guideline 3—Distance Between Work Centers

Recommended: In a kitchen with three work centers*, the sum of the three traveled distances should equal no more than 26 feet with no single leg of the triangle measuring less than 4 feet nor more than 9 feet.

When the kitchen plan includes more than three primary appliance/work centers, each additional travel distance to another appliance/work center should measure no less than 4 feet and no more than 9 feet.

Each leg is measured from the center-front of the appliance/sink.

No work triangle leg intersects an island/peninsula or other obstacle by more than 12 inches.

*A major appliance and its surrounding landing/work area form a work center. The distances between the three primary work centers (cooking surface, cleanup/prep primary sink, and refrigeration storage) form a work triangle.

Kitchen Planning Guideline 4—Separating Work Centers

Recommended: A full-height, full-depth, tall obstacle* should not separate two primary work centers.

A properly recessed tall corner unit will not interrupt the workflow and is acceptable.

*Examples of a full-height obstacle are a tall oven cabinet, tall pantry cabinet, or refrigerator.

Kitchen Planning Guideline 5—Work Triangle Traffic

Recommended: No major traffic patterns should cross through the basic work triangle.

Kitchen Planning Guideline 6—Work Aisle

Recommended: The width of a work aisle should be at least 42 inches for one cook and at least 48 inches for multiple cooks. Measure between the counter frontage, tall cabinets, and/or appliances.

Kitchen Planning Guideline 7—Walkway

Recommended: The width of a walkway should be at least 36 inches.

Kitchen Planning Guideline 8—Traffic Clearance at Seating

Recommended: In a seating area where no traffic passes behind a seated diner, allow 32 inches of clearance from the counter/table edge to any wall or other obstruction behind the seating area.

- a. If traffic passes behind the seated diner, allow at least 36 inches to edge past.
- b. If traffic passes behind the seated diner, allow at least 44 inches to walk past.

Kitchen Planning Guideline 9—Seating Clearance

Recommended: Kitchen seating areas should incorporate at least the following clearances:

- a. 30 inches for high tables/counters:
Allow a 24-inch-wide by 18-inch-deep counter space for each seated diner.
- b. 36-inch-high counters:
Allow a 24-inch-wide by 15-inch-deep counter space for each seated diner and at least 15 inches of clear knee space.
- c. 42-inch-high counters:
Allow a 24-inch-wide by 12-inch-deep counter space for each seated diner and 12 inches of clear knee space.

Kitchen Planning Guideline 10—Cleanup/Prep Sink Placement

Recommended: If a kitchen has only one sink, locate it adjacent to or across from the cooking surface and refrigerator.

Kitchen Planning Guideline 11—Cleanup/Prep Sink Landing Area

Recommended: Include at least a 24-inch-wide landing area* to one side of the sink and at least an 18-inch-wide landing area on the other side.

If all of the countertop at the sink is not at the same height, then plan a 24-inch landing area on one side of the sink and 3 inches of countertop frontage on the other side, both at the same height as the sink.

The 24 inches of recommended landing area can be met by 3 inches of countertop frontage from the edge of the sink to the inside corner of the countertop if more than 21 inches of countertop frontage is available on the return.

*Landing area is measured as countertop frontage adjacent to a sink and/or an appliance. The countertop must be at least 16 inches deep and must be 28 inches to 45 inches above the finished floor to qualify.

Kitchen Planning Guideline 12—Preparation/Work Area

Recommended: Include a section of continuous countertop at least 36 inches wide by 24 inches deep immediately next to a sink for a primary preparation/work area.

Kitchen Planning Guideline 13—Dishwasher Placement

Recommended: Locate nearest edge of the primary dishwasher within 36 inches of the nearest edge of a cleanup/prep sink.

Provide at least 21 inches of standing space between the edge of the dishwasher and countertop frontage, appliances, and/or cabinets, which are placed at a right angle to the dishwasher.

*In a diagonal installation, the 21 inches is measured from the center of the sink to the edge of the dishwasher door in an open position.

Kitchen Planning Guideline 14—Waste Receptacles

Recommended: Include at least two waste receptacles. Locate one near each of the cleanup/prep sink(s) and a second for recycling either in the kitchen or nearby.

Kitchen Planning Guideline 15—Auxiliary Sink

Recommended: At least 3 inches of countertop frontage should be provided on one side of the auxiliary sink and 18 inches of countertop frontage on the other side, both at the same height as the sink.

Kitchen Planning Guideline 16—Refrigerator Landing Area

Recommended: Include at least:

- a. 15 inches of landing area on the handle side of the refrigerator, or
- b. 15 inches of landing area on either side of a side-by-side refrigerator, or
- c. 15 inches of landing area that is no more than 48 inches across from the front of the refrigerator, or
- d. 15 inches of landing area above or adjacent to any undercounter-style refrigeration appliance.

Kitchen Planning Guideline 17—Cooking Surface Landing Area

Recommended: Include a minimum of 12 inches of landing area on one side of a cooking surface and 15 inches on the other side.

If the cooking surface is at a different countertop height than the rest of the kitchen, then the 12-inch and 15-inch landing areas must be at the same height as the cooking surface.

For safety reasons, in an island or peninsula situation, the countertop should also extend a minimum of 9 inches behind the cooking surface if the counter height is the same as the surface-cooking appliance.

For an enclosed configuration, a reduction of clearances shall be in accordance with the appliance manufacturer's instructions or per local codes. (This may not provide adequate landing area.)

Kitchen Planning Guideline 18—Cooking Surface Clearance

Recommended: Allow 24 inches of clearance between the cooking surface and a protected noncombustible surface above it.

Code Requirement:

- At least 30 inches of clearance is required between the cooking surface and an unprotected/combustible surface above it.
- If a microwave hood combination is used above the cooking surface, then the manufacturer's specifications should be followed.

Refer to manufacturers' specifications or local building codes for other considerations.

Kitchen Planning Guideline 19—Cooking Surface Ventilation

Recommended: Provide a correctly sized, ducted ventilation system for all cooking surface appliances. The recommended minimum is 150 CFM.

Code Requirement:

- Manufacturers' specifications must be followed.
- The minimum required exhaust rate for a ducted hood is 100 CFM, and it must be ducted to the outside.
- Make-up air, fresh air brought inside to replace exhausted air, may need to be provided. Refer to local codes.

Kitchen Planning Guideline 20—Cooking Surface Safety

Recommended:

- a. Do not locate the cooking surface under an operable window.
- b. Window treatments above the cooking surface should not use flammable materials.
- c. A fire extinguisher should be located near the exit of the kitchen away from cooking equipment.

Kitchen Planning Guideline 21—Microwave Oven Placement

Recommended: Locate the microwave oven after considering the user's height and abilities. The ideal location for the bottom of the microwave is 3 inches below the principle user's shoulder, but no more than 54 inches above the floor.

If the microwave oven is placed below the countertop, the oven bottom must be at least 15 inches off the finished floor.

Kitchen Planning Guideline 22—Microwave Landing Area

Recommended: Provide at least a 15-inch landing area above, below, or adjacent to the handle side of a microwave oven.

Kitchen Planning Guideline 23—Oven Landing Area

Recommended: Include at least a 15-inch landing area next to or above the oven.

At least a 15-inch landing area that is not more than 48 inches across from the oven is acceptable if the appliance does not open into a walkway.

Kitchen Planning Guideline 24—Combining Landing Areas

Recommended: If two landing areas are adjacent to one another, determine a new minimum for the two adjoining spaces by taking the longer of the two landing area requirements and adding 12 inches.

Kitchen Planning Guideline 25—Countertop Space

Recommended: A total of 158 inches of countertop frontage, 24 inches deep, with at least 15 inches of clearance above, is needed to accommodate all uses, including landing area, preparation/work area, and storage.

Built-in appliance garages extending to the countertop can be counted towards the total countertop frontage recommendation, but they may interfere with the landing areas.

Kitchen Planning Guideline 26—Countertop Edges

Recommendation: Specify clipped or round corners rather than sharp edges on all counters.

Kitchen Planning Guideline 27—Storage

Recommendation:

The total shelf/drawer frontage* is:

- a. 1,400 inches for a small kitchen (less than 150 square feet);
- b. 1,700 inches for a medium kitchen (151-350 square feet); and
- c. 2,000 inches for a large kitchen (greater than 350 square feet).

	Small	Medium	Large
Wall	300 inches	360 inches	360 inches
Base	520 inches	615 inches	660 inches
Drawer	360 inches	400 inches	525 inches
Pantry	180 inches	230 inches	310 inches
Misc.	40 inches	95 inches	145 inches

The totals for wall base, drawer, and pantry shelf/drawer frontage can be adjusted upward or downward as long as the recommended total stays the same.

Do not apply more than the recommended amount of storage in the miscellaneous category to meet the total frontage recommendation.

Storage areas that are more than 84 inches above the floor must be counted in the miscellaneous category.

*Shelf and drawer frontage is determined by multiplying the cabinet size by the number and depth of the shelf or drawer in the cabinet, using the following formula:

Cabinet width in inches x number of shelf/drawers x cabinet depth in feet (or fraction thereof) = shelf/drawer frontage

Storage/organizing items can enhance the functional capacity of wall, base, drawer, and pantry storage and should be selected to meet user needs.

Kitchen Planning Guideline 28—**Storage at Cleanup/Prep Sink**

Recommended: Of the total recommended wall, base, drawer, and pantry shelf/drawer frontage, the following should be located within 72 inches of the centerline of the main cleanup/prep sink:

1. at least 400 inches for a small kitchen;
2. at least 480 inches for a medium kitchen;
3. at least 560 inches for a large kitchen.

Kitchen Planning Guideline 29—**Corner Cabinet Storage**

Recommended: At least one corner cabinet should include a functional storage device.

This guideline does not apply if there are no corner cabinets.

Kitchen Planning Guideline 30—**Electrical Receptacles**

Code Requirement:

*GFCI (Ground-fault circuit-interrupter) protection is required on all receptacles servicing countertop surfaces within the kitchen.

Refer to IRC 3801.4.1 through E 3801.4.5 for receptacle placement and locations.

Kitchen Planning Guideline 31— Lighting

Recommended: In addition to general lighting required by code, every work surface should be well illuminated by appropriate task lighting.

Code Requirement:

*At least one wall-switch-controlled light must be provided. Switch must be placed at the entrance.

*Window/skylight area, equal to at least 8 percent of the total square footage of the kitchen, or a total living space, which includes a kitchen, is required.



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BATHROOM PLANNING GUIDELINES

Excerpt from the NKBA Professional Resource Library Kitchen Planning and Bath Planning Volumes

Bathroom Planning Guideline 1—Door Entry

Recommended: The clear opening of a doorway should be at least 34 inches wide. This would require a minimum 2-foot 10-inch door.

If the existing structure precludes changing the opening, then a minimum 2-foot door is allowable.

Bathroom Planning Guideline 2—Door Interference

Recommended: No entry or fixture door should interfere with one another and/or the safe use of the fixtures or cabinets.

Bathroom Planning Guideline 3—Ceiling Height

Code Requirement:

*Bathrooms shall have a minimum floor-to-ceiling height of 80 inches over the fixtures and at the front clearance area for fixtures. A shower or tub equipped with a showerhead shall have a minimum floor-to-ceiling height of 80 inches above a minimum area 30x30 inches at the shower head.

Bathroom Planning Guideline 4—Clear Space

Recommended: Plan a clear floor space of at least 30 inches from the front edge of all fixtures (i.e., lavatory, toilet, bidet, tub, and shower) to any opposite bath fixture, wall, or obstacle.

Code Requirement:

*A minimum space of at least 21 inches must be planned in front of lavatory, toilet, bidet, and tub.

*A minimum space of at least 24 inches must be planned in front of a shower entry.

Bathroom Planning Guideline 5—Single Lavatory Placement

Recommended: The distance from the centerline of the lavatory to the sidewall/tall obstacle should be at least 20 inches.

Code Requirement:

- The minimum distance from the centerline of the lavatory to a wall is 15 inches.
- The minimum distance between a wall and the edge of a freestanding or wall-hung lavatory is 4 inches.

Bathroom Planning Guideline 6—Double Lavatory Placement

Recommended: The distance between the centerlines of two lavatories should be at least 36 inches.

Code Requirement:

- The minimum distance between the centerlines of two lavatories should be at least 30 inches.
- The minimum distance between the edges of two freestanding or wall-hung lavatories is 4 inches.

Bathroom Planning Guideline 7—Lavatory/Vanity Height

Recommended: The height for a lavatory varies between 32-43 inches to fit the user.

Bathroom Planning Guideline 8—Countertop Edges

Recommended: Specify clipped or round corners rather than sharp edges on all counters.

Bathroom Planning Guideline 9—Shower Size

Recommended: The interior shower size is at least 36x36 inches.

Code Requirement:

- The minimum interior shower size is 30x30 inches or 900 square inches, in which a disc of 30 inches in diameter must fit.

Bathroom Planning Guideline 10—Tub/Shower Controls

Recommended:

- d. The shower controls should be accessible from both inside and outside the shower spray and be located between 38 to 48 inches above the floor, depending on user's height.
- e. The tub controls should be accessible from both inside and outside the tub and be located between the rim of the bathtub and 33 inches above the floor.

Bathroom Planning Guideline 11—Shower/Tub Control Valves

Code Requirement:

Shower and tub/shower control valves must be one of the following:

- pressure balanced
- thermostatic mixing
- combination pressure balance/thermostatic mixing valve types

Bathroom Planning Guideline 12—Shower Seat

Recommended: Plan a seat within the shower that is 17-19 inches above the shower floor and 15 inches deep.

Code Requirement:

- Shower seat must not infringe on the minimum interior size of the shower (900 square inches).

Bathroom Planning Guideline 13—Tub/Shower Surround

Recommended: The wall area above a tub or shower pan should be covered in a waterproof material extending at least 3 inches above the showerhead rough-in.

Bathroom Planning Guideline 14—Grab Bars

Recommended: Plan grab bars to facilitate access to and maneuvering within the tub and shower areas.

Tub and shower walls should be prepared (reinforced) at time of construction to allow for installation of grab bars to support a static load of 300 pounds.

Grab bars should be placed at least 33-36 inches above the floor.

Grab bars must be 1¼ to 1½ inches in diameter and extend 1½ inches from the wall.

Bathroom Planning Guideline 15—Glazing

Code Requirement:

- Glass used in tub or shower enclosures (i.e. tub or shower door) or partitions must be tempered or an approved equal and must be permanently marked as such.
- If the tub or shower surround has glass windows or walls, the glazing must be tempered glass or approved equal when the bottom edge of glazing is less than 60 inches above any standing or walking surface.
- Any glazing (i.e. windows or doors) whose bottom edge is less than 18 inches above the floor must be tempered glass or approved equal.

Bathroom Planning Guideline 16—Tub/Shower Door

Code Requirement:

- Hinged shower doors shall open outward.

Bathroom Planning Guideline 17—Steps

Recommended: Steps should not be placed outside a tub.

If steps are used, a grab bar/handrail is mandatory.

Bathroom Planning Guideline 18—Flooring

Recommended: Slip-resistant surfaces should be specified for the general bath flooring, shower floors, and tub/shower bottoms.

Bathroom Planning Guideline 19—Equipment Access

Code Requirement:

- All equipment, including access panels, must be installed as per manufacturers' specification.
- All manufacturers' instructions must be available for installers and inspectors and left for homeowners.

Bathroom Planning Guideline 20—Toilet/Bidet Placement

Recommended: The distance from the centerline of toilet and/or bidet to any bath fixture, wall, or other obstacle should be at least 18 inches.

Code Requirement:

- A minimum distance of 15 inches is required from the centerline of toilet and/or bidet to any bath fixture, wall, or other obstacle.

Bathroom Planning Guideline 21—Toilet Compartment

Recommended: The size for a separate toilet compartment should be at least 36x66 inches with a swing-out or pocket door.

Code Requirement:

- The minimum size for a separate toilet compartment is 30x60 inches.

Bathroom Planning Guideline 22—Storage

Recommended: Provide adequate, accessible storage for toiletries, bath linens, and grooming and general bathroom supplies at point of use.

Bathroom Planning Guideline 23—Accessories

Recommended:

- f. Place a mirror above or near the lavatory at a height that takes the user's eye height into consideration.
- g. The toilet paper holder should be located 8-12 inches in front of the edge of the toilet bowl, centered at 26 inches above the floor.
- h. Additional accessories, such as towel holders, soap dishes, etc., should be conveniently located near all bath fixtures.

Bathroom Planning Guideline 24—Electrical Receptacles

Recommended: All ground fault circuit interrupter receptacles should be located at electrical appliance points of use.

Code Requirements:

- At least one GFCI-protected receptacle must be installed within 36 inches of the outside of the lavatory.
- All receptacles must be protected by ground fault circuit interrupters.

Kitchen Planning Guideline 25—Lighting

Recommended: In addition to general lighting, task lighting should be provided for each functional area in the bathroom (i.e. grooming, showering).

Code Requirement:

- At least one wall-switch-controlled light must be provided. Switch must be placed at the entrance.
- All light fixtures installed within tub and shower spaces should be marked “suitable for damp/wet locations.”
- Hanging fixtures cannot be located within a zone of 3 feet horizontally and 8 feet vertically from the top of the bathtub rim.

Bathroom Planning Guideline 26—Ventilation

Recommendation: Plan a mechanical exhaust system, vented to the outside, for each enclosed area.

Code Requirement:

- Minimum ventilation for the bathroom is to be a window of at least 3 square feet of which 50 percent is operable or a mechanical ventilation system of at least 50 cubic feet per minute (CFM) ducted to the outside.

Bathroom Planning Guideline 27—Heat

Recommended: A supplemental heat source, i.e., heat lamp, toe kick heater, or floor heat, should be considered.

Code Requirement:

- All bathrooms should have an appropriate heat source to maintain a minimum room temperature of 68°F (20°C).

Professional Certification

NKBA developed its certification programs as a way for kitchen and bath professionals to enhance their careers and market themselves as experts in the specific competencies related to their business.

Levels of certification available

- Associate Kitchen & Bath Designer (**AKBD**)
- Certified Kitchen Designer (**CKD**)
- Certified Bathroom Designer (**CBD**)
- Certified Kitchen Educator (**CKE**)
- Certified Bathroom Educator (**CBE**)
- Certified Kitchen & Bath Installer (**CKBI**)
- Certified Master Kitchen & Bath Designer (**CMKBD**)

	Experience	Education	Endorsement	Expenses*	Exam
AKBD	2 years	30 hours of NKBA professional development programming	2 Professional affidavits	\$75 application fee	AKBD academic exam
	1 year min. kitchen/bath industry experience			\$200 exam fee	
	1 year related experience or formal education				
CKD or CBD	7 years	60 hours of NKBA professional development programming	2 Client references	\$75 application fee	AKBD academic exam and Design exam or CBD Design exam
	3 years min. full-time residential kitchen/bath design and;		2 Professional affidavits	\$400 exam fee (\$200 per section)	
	4 years related experience or formal education				
CKE or CBE	7 years	60 hours of NKBA professional development programming	2 Professional affidavits	\$75 application fee	AKBD academic exam and Design exam or CBD Design exam
	3 years min. full-time teaching experience in kitchen/bath design or Interior Design			\$400 exam fee (\$200 per section)	
	4 years related experience or formal education				
CKBI	5 years	N/A for this level	2 Client references with project portfolios	\$75 application fee	CKBI Academic exam
	2 years min. full-time kitchen/bath installation experience			\$200 exam fee	
	3 years related experience or formal education		2 Professional affidavits		

CMKBD	10 years of kitchen and bath industry experience in addition to experience demonstrated for 1st certification, of which min. 5 years is kitchen/bath design	100 hours of NKBA professional development programming (can include education used to achieve AKBD and/or CKD and CBD)	3 examples of design excellence by 3rd party endorsement - (design contest placement, published projects, television interviews, community endeavors, etc.)	\$75 application fee	None- must possess both C and CBD certifications
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***Expenses listed above pertain only to the certification application/exam process. Members must also pay their annual membership dues, and once certification is awarded, a \$100 certification maintenance fee.**

Certification requirements

AKBD:

Defined: AKBDs are industry professionals with documented experience and education in the kitchen and bath industry. While it is not predominantly design experience that the AKBD must demonstrate, the AKBDs range of expertise could include sales, manufacturing, design, drafting, fixtures, etc. This combination of experience and education ensures that the AKBD is a trained, qualified professional in the kitchen and bath industry.

Requirements: Applicants must document a minimum of two (2) years of experience. A minimum of one year must be specifically within the kitchen/bathroom industry, including but not limited to: kitchen/bath design, space planning, sales, project management, drafting, manufacturing, distribution, cabinet design, installation, decorative plumbing/hardware sales, manufacturer's rep., etc.

The second year can consist of kitchen/bath industry-related experience or formal education. Related experience is defined as interior design, interior decorating, architecture, remodeling or construction. Industry-specific formal education will be considered only if college transcripts accompany the application.

Applicants must also earn a minimum of 30 hours of NKBA education or equivalent college. Education must be completed before the candidate's application for certification can be approved. Courses should be documented as accurately as possible on the application.

CKD/CBD:

Defined: CKDs and CBDs specialize in the design, planning and execution of residential kitchens and bathrooms, and prove advanced knowledge of technical and personal communication skills required to succeed as a design specialist.

Requirements: Applicants must document a minimum of seven (7) years of experience. A minimum of three years must be specifically from full-time residential kitchen/bath design experience, including design execution or project management. The remaining four years can consist of full-time kitchen/bath design, related experience, or formal education.

Applicants must also earn a minimum of 60 hours of NKBA education or equivalent college. Education must be completed before the candidate's application for certification can be approved. Courses should be documented as accurately as possible on the application.

CKBI:

Defined: Certified Kitchen & Bathroom Installers (CKBIs) are skilled individuals who specialize in kitchen and bathroom installation, safety awareness, customer relations and business management. Kitchen and bathroom installations require more than just the ability to physically install cabinets, fixtures, and appliances. Professional installers must also be able to competently manage a project from start to finish. CKBIs prove advanced knowledge of technical and personal communication skills required to succeed as an installer specialist.

Requirements: The primary requirement is five years of full-time experience (35 hours per week) in kitchen and/or bathroom installation. As an alternative, related industry experience or education may be combined with a minimum of two years of full-time kitchen and/or bathroom installation experience to meet the five year requirement. No NKBA education is required for the CKBI level.

CKE/CBE:

Defined: Certified Kitchen Educators and Certified Bathroom Educators are college instructors who specialize in teaching residential kitchen and/or bathroom design. They understand the unique qualifications required for kitchen and bathroom design specialization, and they transfer their knowledge to interior design students. A college instructor achieves the CKE or CBE designation by proving experience as an interior design college educator and passing the CKD exam for CKE certification, or the CBD exam for CBE certification.

Requirements: CKEs and CBEs must demonstrate a minimum of seven years of full-time teaching experience in interior design or a minimum of three years teaching experience combined with formal education for a total of seven years. No formal design experience is required.

Applicants must also earn a minimum of 60 hours of NKBA education. Education must be completed before the candidate's application for certification can be approved. Courses should be documented as accurately as possible on the application.

CMKBD:

Defined: The Certified Master Kitchen and Bath Designer is a program which recognizes extraordinary experience and achievements in the kitchen and bath industry. The CMKBD must possess not only both their CKD and CBD certifications, but must have an additional 10 years of experience in the industry beyond the date of their first certification. This means that CMKBDs must have a minimum of 17 years of industry experience!

Requirements: Candidates applying for the CMKBD certification are required to have both their CKD and CBD certifications prior to applying. Candidates must also have an additional 10 years of industry experience in addition to the experience they already demonstrated to earn their CKD and/or CBD designation. Five (5) years of this additional experience must be from full-time kitchen/bath design.

Applicants must also earn a minimum of 100 hours of NKBA education. Education must be completed before the candidate's application for certification can be approved. Courses should be documented as accurately as possible on the application.

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